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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/685,899	10/15/2003	Sandeep Kulkarni	57349.D1 (CSP-025549-V1)	6249
1726 7590 09/15/2009 INTERNATIONAL PAPER COMPANY 6285 TRI-RIDGE BOULEVARD LOVELAND, OH 45140			EXAMINER CAMERON, ERMA C	
			ART UNIT 1792	PAPER NUMBER
			MAIL DATE 09/15/2009	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/685,899	<b>Applicant(s)</b> KULKARNI ET AL.	
	<b>Examiner</b> /Erma Cameron/	<b>Art Unit</b> 1792	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 August 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 27-34, 37-39 and 53-65 is/are pending in the application.
- 4a) Of the above claim(s) 31, 32, 34 and 64 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 27-30, 33, 37-39, 53-63 and 65 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Amendment***

The examiner notes that each of pages 2 to 19 of the 8/3/2009 amendment has 12/148299 as the serial number.

### **Claim Rejections - 35 USC § 112**

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claim 58 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 58: the subject matter of claim 58 was not in the specification or claims as filed.

[0014] discloses that holdout layer 12 contacts two surfaces of the base layer (web) in the case where print receptive layer is coated on both surfaces of the web.

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The claim of claim 58 is broader in scope than this disclosure, as it permits the holdout layer to contact two surfaces of the base layer even when the combination of claim 58 and 27 do not indicate that both surfaces of the base layer are coated with an ink receptive layer.

The applicant is requested to cancel all new matter.

3. Claims 54 and 63 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

“number of years” is new matter that was not in the specification as filed.

The applicant is requested to cancel all new matter.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 54 and 63 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a) Claims 54 and 63: “number” is vague in that it could mean 1.1 years or 1000 years.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 27-30, 33, 37-39, 53-59, 63 and 65 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 99/63157 taken in view of Malhotra (5709976).

‘157 teaches a paper or paperboard with a basis weight such as 200 g/m<sup>2</sup> (= 123 lb/ 3000 square feet) (3:7-26) and a basecoat of starch or other materials, with an ink-receptive layer on top that comprises acrylic polymers and additives such as polyvinyl alcohol (6:24-9:23). The improved durability, resistance to staining and storageability are inherent to the coatings.

‘157 fails to teach that the ink receiving layer has a biocide.

‘976 teaches a coated paper with a barrier layer and an ink receiving layer over the barrier layer that comprise a biocide, as well as acrylic emulsions (see Abstract; 6:61-65; 12:1-6; 23:9-24:25).

It would have been obvious one of ordinary skill in the art to have added the biocide of the ‘976 ink receiving layer into the ‘157 paper because of the teaching of ‘976 that such a biocide is conventional in an acrylic containing ink receiving layer.

'157 does not teach the water absorption range, but because the coatings are similar to those claimed by applicant, the water absorption range of the '157 paper or paperboard are expected to overlap with that claimed by applicant.

The ink receptive layer is 0.5-10 g/m<sup>2</sup> ( 0.37-6.1 lb per 3000 sf) (4:13-22) which overlaps with the coat weight claimed by applicant.

***Response to Arguments***

The applicant has argued that the starch used in the basecoat layer of '157 is not the same as the "starch sizing agent" of claim 27, but fails to teach how starch is different from starch. Because the material used in the '157 basecoat is starch and the material used in the "holdout layer" of claim 27 is starch, the examiner cannot comprehend how the two materials could behave differently from each other.

The applicant has also argued that the image receiving coating of '976 is on top of a "hydrophobic barrier layer", different from the mineral pigment basecoat of '157. It is the examiner's position that '976 is being used here for the teaching of using a biocide in an ink receiving layer.

The applicant has argued that there is no motivation to combine the two references. The examiner disagrees. The motivation to combine the biocide of '976 into the '157 paper is for the evident functionality of a biocide in protecting the ink receiving layer from bacterial growth. These are not facts within the examiner's personal knowledge, as applicant has stated, but rather knowledge generally available to one of ordinary skill in the art.

7. Claims 27-30, 33, 37-39, 53-59, 63 and 65 rejected under 35 U.S.C. 103(a) as being unpatentable over Bailey et al (5885340).

‘340 teaches a printable paper or paperboard coated with a first layer that comprises starch, and a second layer that comprises acrylic latex, biocide and other additives (see Abstract; 1:14-41; 2:18-56; 3:35-5:29; see Examples). Because the paper material may be a paperboard, it appears to meet the basis weight limitations.

‘340 does not teach the water absorption range, but because the coatings are similar to those claimed by applicant, the water absorption range of the ‘340 paper or paperboard are expected to overlap with that claimed by applicant.

#### ***Response to Arguments***

The applicant has argued that ‘340 does not teach that the second layer contains acrylic latex and biocides. The examiner disagrees. Among the components that may be in a given coating layer are a) latex such as acrylic latex and l) biocides (3:42-5:5).

The applicant has also argued that the second layer is not an ink receptive layer. The examiner disagrees. ‘340 teaches that the paper produced by their invention is capable of being printed on (see Abstract, claim 1, 1:13-41; 2:18-33).

Examiner’s rejection of claims 27-30, 33, 37-39, 53-59, 63 and 65 based on Bailey et al (5885340) is based on the disclosure of ‘340 and not on personal knowledge of the examiner.

8. Claims 27-30, 33, 37-39, 53-59, 63 and 65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dagan et al (6291127) taken in view of Malhotra (5709976).

‘127 teaches a paper with a basis weight such as 250 g/m<sup>2</sup> (6:45-59) and a basecoat of external sizing agents such as starch or other materials (7:21-66), which may be applied in a sizing tub, and therefore is applied to both sides of the paper (8:20-25). The external sizing agents are employed for their liquid hold-out properties (7:28-31). There is with an ink-receptive layer on top that comprises acrylic polymers or silica or other materials (12:58-13:27)). The improved durability, resistance to staining and storageability are inherent to the coatings.

‘157 fails to teach that the ink receiving layer has a biocide.

‘976 teaches a coated paper with a barrier layer and an ink receiving layer over the barrier layer that comprise a biocide, as well as acrylic emulsions (see Abstract; 6:61-65; 12:1-6; 23:9-24:25).

It would have been obvious one of ordinary skill in the art to have added the biocide of the ‘976 ink receiving layer into the ‘127 paper because of the teaching of ‘976 that such a biocide is conventional in an acrylic containing ink receiving layer.

‘127 does not teach the water absorption range, but because the coatings are similar to those claimed by applicant, the water absorption range of the ‘127 paper is expected to overlap with that claimed by applicant.

9. Claims 60-62 are rejected under 35 U.S.C. 103(a) as being unpatentable over [WO 99/63157 taken in view of Malhotra (5709976)], or Bailey et al (5885340), or [Dagan et al (6291127) taken in view of Malhotra (5709976)], any further taken in view of EP 880892.

‘157, ‘976 , ‘340 and ‘127 are all applied here for the reasons given above.



None of these reference teach the biocides of claims 60-62.

'892 teaches that 3-iodo-2 propynyl butyl carbamate (4:25) is a microbiocide that may be used in paper coatings (5:8-19).

It would have been obvious to one of ordinary skill in the art to have substituted the biocide of '976 or '340 with the carbamate biocide of '892 with the expectation of success in controlling bacterial growth because of the teaching of '892 that 3-iodo-2-propynyl butyl carbamate is a successful biocide for paper.

### ***Response to Arguments***

The applicant has not presented additional arguments rewarding this rejection other than the arguments presented above.

### ***Drawings***

10. The drawings are objected to under 37 CFR 1.83(a) because they fail to show web 48 as described in the specification at page 8, line 26. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must

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be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Conclusion***

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to /Erma Cameron/ whose telephone number is 571-272-1416. The examiner can normally be reached on 8:30-6:00, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Erma Cameron/  
Primary Examiner  
Art Unit 1792

September 9, 2009